

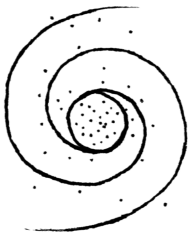
# Galaxies

## To discuss ...

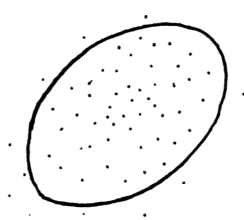
- What happens when you look at the stars with a telescope..?
  - Many little things that look like stars are really other galaxies.  
(Before we knew what they were, galaxies actually appeared as “fuzzy” stars.)
- What’s a galaxy..?
  - A huge group of stars; a vast ocean of stars.  
Our own galaxy, the “Milky Way,” contains about 200 billion stars.  
(Many galaxies, including our own, also contain huge clouds of gas and dust.)
- How did we find out that our galaxy wasn’t the only one..?
  - In the 1920s, a man named Edwin Hubble used a powerful telescope to find out that some “stars” were actually other galaxies.  
(The Hubble Space Telescope bears his name.)
- What did the discovery of other galaxies tell us about the size of the Universe..?
  - The Universe was a billion times bigger than we thought.  
(Actually, many billions of times bigger since scientists estimate the Universe may contain 100 billion galaxies..!)
- Did this discovery about the true size of the Universe make people feel differently about the world..? About themselves..? (In what way..?)
  - More scientists (and more people in general) began to believe that we don’t have the Universe all to ourselves, and that life may exist elsewhere.  
*While this discovery made the Earth seem much smaller, it also made dreamers and scientists out of many young people. The true size of the Universe has stretched our imaginations with unlimited possibilities.*

## To do ...

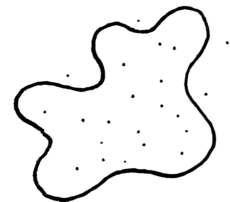
- Galaxies come in different shapes. Does anyone know the shape of our own galaxy, the “Milky Way?” Draw the basic galaxy types on the blackboard.



Spiral galaxy  
(like the Milky Way)



Elliptical galaxy  
(rounded or oval shape)



Irregular galaxy  
(no regular shape)